TRANSMITTAL OF APPEAL BRIEF	Docket No. 249768079US

In re Application of: Selinger et al.

Application No.	Filing Date	Examiner	Group Art Unit
10/804,811-Conf. #7068	March 19, 2004	J. B. Dunham	3625

Invention: IDENTIFYING EARLY ADOPTERS AND ITEMS ADOPTED BY THEM

TO THE COMMISSIONER OF PATENTS:

Transmitted herewith is the Appeal Brief in this application, with respect to the Notice of Appeal filed: December 28, 2006 .

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Dated: Feb. 28, 2007

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Docket No.: 249768079US
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Selinger et al.

Application No.: 10/804,811 | Confirmation No.: 7068

Filed: March 19, 2004 | Art Unit: 3625

For: IDENTIFYING EARLY ADOPTERS AND ITEMS ADOPTED BY THEM | Examiner: J. B. Dunham

APPEAL BRIEF

MS Appeal Brief - Patents
Commissioner for Patents
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Sir:

This brief is in furtherance of the Notice of Appeal filed in this case on December 28, 2006. The fees required under 37 C.F.R. § 41.20(b)(2) are dealt with in the accompanying TRANSMITTAL OF APPEAL BRIEF.

This brief contains items under headings required by 37 C.F.R. § 41.37. A complete Table of Contents follows.

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I. REAL PARTY IN INTEREST

The rights of the inventors in this application have been assigned to Amazon Technologies, Inc., 923 Incline Way, Incline Valley, Nevada 89451, as recorded at reel 015763, frame 0852.

II. RELATED APPEALS AND INTERFERENCES

Neither Appellants, Appellants' legal representative, nor the above-identified Assignee are aware of other appeals or interferences which will directly affect or be directly affected by or have a bearing on the Board's decision in the present appeal.

III. STATUS OF CLAIMS

Claims 1-34 have been presented. Claims 1-9 and 21-34 have been canceled during prosecution. Claims 10-20 are therefore presently pending and stand finally rejected under 35 U.S.C. § 102(e) over U.S. Patent Publication No. US 2004/0260600 A1 to Gross ("Gross").

Claims 10-20 are the subject of this appeal, the text of which is set forth in the Claims Appendix.

IV. STATUS OF AMENDMENTS

No amendments have been filed subsequent to the last Office Action dated September 28, 2006 ("last Office Action").

V. SUMMARY OF CLAIMED SUBJECT MATTER

A. Overview of Applicants' Technology and the Gross Reference

1. Applicants' Technology

Appellants' technology is generally directed to identifying as "early adopter picks" products that are disproportionately purchased by early adopters. Early adopters are customers who seek out cutting-edge products before the products reach mainstream popularity. In some embodiments, the technology determines a score for a product or item ("item score") identified as an early adopter pick. The item score may be scaled to positively relate the score to the product's price and negatively relate the score to the amount of time that has elapsed since the product became available for ordering. Item scores reflect the extent to which each item is considered to be an early adopter pick. (Appellants' specification, [0026].) In various embodiments, calculation of the item scores involves a mathematical product of the highest price for the item and a measure of the amount of time that has elapsed since the item became available for ordering. (Appellants' specification, [0042]). As an example, the score can be computed by employing the following formula:

$$(\text{highest price}) * e^{\text{Decay} * \text{days since launch date}}$$

In this formula, an item's score is computed by multiplying the highest price of an item by Euler's number ("e," which is approximately 2.71828) raised to the power of the product of a decay constant and the number of days since the item was launched. The decay constant is a negative number, such as -0.1. Thus, higher prices lead to higher scores and so the score is positively related to the price. In contrast, the longer the elapsed time since the product became available for ordering, the lower the score because $e^{\text{Decay} * \text{days since launch date}}$ decreases as the "days since launch date" value increases. Thus, the score is negatively related to the time the product has been available for ordering.

Appellants' specification also provides other formulae for computing scores that positively relate to price and negatively relate to time.

2. The Gross Reference

Gross is directed to a "system and method for determining and identifying demand for items based on observing behavior of trendsetters within a member population." (Gross, Abstract.) Trendsetters are "individuals who are characterized as relatively early adopters of items that later become relatively popular within the community of subscribers." (See Gross, [0040].) Gross provides techniques for identifying trendsetters within an online community, determining and scaling trendsetter ratings, identifying trend predictors within an online community, and identifying demand by an online community for a particular item. (See Gross, [0019], [0020], [0025], and [0031].) Gross identifies demand for an item based on the adoption of the item by trendsetters. (See Gross, [0031].)

B. Independent Claims on Appeal

The rejected independent claims are directed to characterizing items based on the items' price and the amount of time that has elapsed since the items became available for ordering. Each independent claim being appealed is paraphrased below, with citations to the corresponding portions of the specification and drawings as required by 37 C.F.R. § 41.37(c)(1)(v). These citations are provided in order to illustrate specific examples and embodiments of the recited claim language, and are not intended to limit the claims. The independent claims on appeal are as follows:

1. Claim 10

Claim 10 is directed to characterizing an item by determining a score for the item reflecting the extent to which the item has been ordered by customers who have been determined to commonly order items promptly after they become available, and scaling the score in a manner that causes it to positively relate to the item's price and negatively relate to the amount of time that has elapsed since the item became available for ordering. (See,

e.g., Specification, paragraphs [0026], [0040-0044], Figure 2, reference 204, and Figure 10, reference 1303.)

2. Claim 15

Claim 15 is directed to characterizing items by, for each of a plurality of items, determining a score for the item in a manner that causes it to (1) positively relate to the extent to which the item has been ordered by customers who have been determined to commonly order items promptly after they become available, (2) positively relate to the item's price, and (3) negatively relate to the amount of time that has elapsed since the item became available for ordering, and storing indications identifying at least a portion of the items having the highest scores. (See, e.g., Specification, paragraphs [0026], [0040-0044], Figure 2, reference 204, and Figure 10, reference 1303.)

3. Claim 20

Claim 20 is directed to one or more computer memories collectively containing a data structure comprising a plurality of entries each corresponding to a different product, each entry comprising, information identifying the product to which the entry corresponds, and a score indicating the extent to which the product (1) has been ordered by customers who have been determined to commonly order items promptly after they become available, (2) has a high price, and (3) recently became available for ordering. (See, e.g., Specification, paragraphs [0026], [0040-0045], Figure 2, reference 204, and Figure 10, reference 1303, and Figure 11.)

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

A. The Examiner's Rejections

The Examiner rejected claims 10-20 under 35 U.S.C. § 102(e) as being unpatentable over Gross.

B. The Issues on Appeal

1. Has the Examiner made a *prima facie* case for rejection under 35 U.S.C. § 102(e) when features of at least claims 10-15 cannot be found in Gross?

2. Is the rejection under 35 U.S.C.§ 102(e) proper when features of claims 10-20 cannot be found in Gross?

VII. ARGUMENTS

A. Rejections Under 35 U.S.C. § 102(e)

1. Legal Standards for Anticipation

The patent statutes provide:

> A person shall be entitled to a patent unless—
>
> . . .
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent

35 U.S.C. § 102. Anticipation requires that each claim element must be identical to a corresponding element in the applied reference. *Glaverbel Société Anonyme v. Northlake Mktg. & Supply, Inc.*, 45 F.3d 1550, 1554 (Fed. Cir. 1995). Indeed, the failure to mention "a claimed element (in) a prior art reference is enough to negate anticipation by that reference." *Atlas Powder Co. v. E.I. du Pont De Nemours*, 750 F.2d 1569, 1574 (Fed. Cir. 1984). To establish a *prima facie* case of anticipation, the Examiner must identify where "each and every facet of the claimed invention is disclosed in the applied reference." *Ex parte Levy,* 17 U.S.P.Q.2d 1461, 1462 (Bd. Pat. App. & Interf. 1990).

Under these standards, Appellants' claims have not have been anticipated because the Office Action has not identified a prior art reference that identically discloses all the

elements of claims 10-20. Therefore, for at least these reasons, these claims should be allowed.

B. Gross Does Not Identically Disclose Scaling an Item Score in Positive Relation to Price or Scaling an Item Score in Negative Relation to Time

Claim 10 recites "scaling the score in a manner that causes it to positively relate to the item's price and negatively relate to the amount of time that has elapsed since the item became available for ordering." Claim 15 recites "determining a score for the item in a manner that causes it to ... positively relate to the item's price, and . . . negatively relate to the amount of time that has elapsed since the item became available for ordering." Claim 20 recites "a score indicating the extent to which the product . . . has a high price, and . . . recently became available for ordering." In rejecting these claims, the last Office Action identified Gross at Figure 1 and paragraphs 19, 31-32, 70, 126, 153, and 158 as allegedly teaching these features. (Last Office Action, Pages 2-4.) The identified figure and paragraphs do not identically disclose the recited claim elements, as is discussed immediately below.

Gross's Figure 1 is a flow diagram illustrating trendsetter identification or evaluation. This flow diagram illustrates Gross's technique for evaluating trendsetters and providing feedback, which is described in Gross at [0088]-[0092]. According to this technique, an adoption prevalence for one or more items is measured for trendsetters. Gross's technique determines the adoption prevalence for an item by measuring the number of instances the item has been adopted by trend predictors or by determining a relative percentage of trend predictors or trendsetters who have adopted the item. (See Gross, [0137].) An item's adoption prevalence neither positively relates to the item's price nor does it negatively relate to the amount of time that has elapsed since the item became available for ordering. Thus, Figure 1 does not identically disclose scaling a product's score in positive relation to its price or scaling a product's score in negative relation to time as recited.

Paragraph 19 describes Gross's technique for identifying trendsetters within an online community. In this technique, a list of trendsetters is generated based on products adopted by the community's members. In the Response to Arguments section of the last Office Action, the Examiner states that "Gross disclose (sic) scoring items based on demand by early adopters." (Last Office Action, Pages 4-5.) The Examiner is incorrect. The entirety of paragraph 19 from Gross is reproduced below for immediate reference:

> A first aspect of the invention concerns a system and method of identifying trendsetters within an online community for items available to members of the online community, the method comprises the steps of: identifying adoptions of a first item made by members of the online community; ranking the adoptions of the first item to identify and provide trendsetter ratings to members who are early adopters of the item; and repeating steps (a) and,(b) for a plurality of second items. The early adopters of the first item can also be early adopters of one or more of the plurality of second items. An ordered list of trendsetter members based on the results of step (c) and the trendsetter ratings for the first item and the plurality of second items is then generated. The items of interest can be a product, a service, content, a market security, etc.

(Gross, [0019].) Thus, Gross's technique ranks adoptions (and not items) to provide trendsetter ratings so that trendsetters, who are people, can be identified. Identification of trendsetters does not identically disclose scaling a product's score in positive relation to its price or scaling a product's score in negative relation to time as recited.

Paragraph 31 describes Gross's technique for identifying demand by an online community for an item by measuring an acceptance value for the item by early adopters whose adoption is imitated by others. The acceptance value for an item relates to adoption by early adopters. Early adopters are people who acquire items relatively early in the item's life cycle, as is illustrated by Gross's Figure 4. Identifying demand does not identically disclose scaling a product's score in positive relation to its price or scaling a product's score in negative relation to time as recited. In fact, Gross does not appear to disclose anywhere how an acceptance value is to be calculated.

Paragraph 32 describes Gross's technique for generating a demand score that identifies a predicted overall remaining demand for an item outside the online community. "The demand score reflects a predicted overall remaining demand for consumers of the particular item outside of the online community." (Gross, [0032].) The demand score does not identically disclose scaling a product's score in positive relation to its price or scaling a product's score in negative relation to time as recited.

Paragraph 70 describes Gross's technique for using trendsetters from one community to predict behavior of another community. As an example, "the consumption of ads by a particular set of persons within a particular electronic community might be a sufficiently useful proxy for predicting the behavior of a different set of persons expected to view such ads in a different medium (i.e., television.)." (Gross, [0070].) In the Response to Arguments section of the last Office Action, the Examiner "notes paragraph 70 of Gross which discloses scoring items, such as stocks, according to their prices." (Sic.) (Last Office Action, Page 4.) Contrary to the Examiner's statement, Gross does not disclose scoring items by price. It merely indicates that Gross's technique can be applied to predicting stock prices. As an example, "[t]he predictions of a stock price by one or more trendsetters may be used to anticipate the performance of a stock within a trading market." This prediction can occur whether a price goes up or down, and so is not positively related to price. Moreover, no scaling is disclosed. Using trendsetters from one community to predict behavior of another community does not identically disclose scaling a product's score in positive relation to its price or scaling a product's score in negative relation to time as recited.

Paragraph 126 describes Gross's technique for scoring an early adopter. One early adopter can receive a higher score for adopting products earlier than another early adopter. Scoring early adopters does not identically disclose scaling a product's score in positive relation to its price or scaling a product's score in negative relation to time as recited. Gross describes scoring a person based on how early the person adopted a product and not scoring a product based on how long it has been available for ordering.

Paragraph 153 describes Gross's technique for communicating early adopters' stock selections to other members of a community. As an example, when successful stock pickers make stock selections, their selections can be communicated to others. In the Response to Arguments section of the last Office Action, the Examiner states "paragraph 153 of Gross discloses, 'selecting stocks just before they rise substantially or even decline substantially in price.'" (Last Office Action, Page 4.) As stated above in relation to paragraph 70, selection of stocks unrelated to the direction of price movement is not a positive relation to price. Moreover, no scaling is disclosed. Communicating early adopters' stock selections does not identically disclose scaling a product's score in positive relation to its price or scaling a product's score in negative relation to time as recited.

Paragraph 158 describes Gross's technique for alerting a community's members to activities of trendsetters, such as at an online auction. Using this technique, members of a community "can determine what is likely to be a 'hot' collectible item in the future." (Gross, [0058]). Alerting members to activities of trendsetters does not identically disclose scaling a product's score in positive relation to its price or scaling a product's score in negative relation to time as recited.

C. Rejections of the Claims

1. The Rejection of Claims 10-20 under 35 U.S.C. § 102(e) Over Gross Is Improper Because the Examiner Has Failed to Identify Where in Gross All Elements of Claims 10-20 Are Disclosed, and Thereby Failed to Establish a *Prima Facie* Case of Anticipation

The Examiner has not satisfied his burden of establishing a *prima facie* case of anticipation. In an Office Action dated April 6, 2006, the Examiner rejected claims 10, 15, and 22 under 35 U.S.C. § 102(e) over Gross. For example, claim 10 was rejected over Gross's paragraph 126. (Office Action of April 6, 2006, Page 3.) In their response of July 6, 2006, Appellants explained that the section of Gross referenced by the Office Action merely discloses "scaling" a trendsetter or early adopter score "in accordance with the degree of 'earliness' so that a person could receive a score that is not simply a

constant." (Gross, [0126].) Scaling to "receive a score that is not simply a constant" (Gross, [0126]) clearly does not anticipate "scaling the score in a manner that causes it to positively relate to the item's price and negatively relate to the amount of time that has elapsed since the item became available for ordering." (Claim 10.) Moreover, scaling raw trendsetter scores in accordance with the degree of "earliness" simply means scaling raw trendsetter scores for an item based on the trendsetter's actual adoption order within the population. This also does not anticipate scaling the adoption prevalence in a manner that causes it to positively relate to the item's price and negatively relate to the amount of time that has elapsed since the item became available for ordering, as recited in claim 10.

In the responsive last Office Action, the Examiner again rejected claim 10 over Gross's Figure 1 and paragraphs 70, 126, and 153. As is described above in subsection B of this section VII, Figure 1 and these paragraphs do not identically disclose "scaling the score in a manner that causes it to positively relate to the item's price and negatively relate to the amount of time that has elapsed since the item became available for ordering."

Thus, the Examiner has not even established a *prima facie* rejection of at least claim 10.

2. Gross Fails to Identically Disclose All of the Elements Recited by Claim 10 and Is Therefore Incapable of Supporting Any Proper Rejection Under 35 U.S.C. § 102(e)

Claim 10 recites "scaling the score in a manner that causes it to positively relate to the item's price and negatively relate to the amount of time that has elapsed since the item became available for ordering." As is described above in subsection B of this section VII, Gross fails to identically disclose these features. Accordingly, claim 10 is allowable for at least these reasons.

3. Gross Fails to Identically Disclose All of the Elements Recited by Claim 15 and Is Therefore Incapable of Supporting Any Proper Rejection Under 35 U.S.C. § 102(e)

Claim 15 recites "determining a score for the item in a manner that causes it to . . . (2) positively relate to the item's price, and (3) negatively relate to the amount of time that has elapsed since the item became available for ordering." As is described above in subsection B of this section VII, Gross fails to identically disclose these features. Accordingly, claim 15 is allowable for at least these reasons.

4. Gross Fails to Identically Disclose All of the Elements Recited by Claim 20 and Is Therefore Incapable of Supporting Any Proper Rejection Under 35 U.S.C. § 102(e)

Claim 20 recites "a score indicating the extent to which the product . . . (2) has a high price, and (3) recently became available for ordering." As is described above in subsection B of this section VII, Gross fails to identically disclose these features. Accordingly, claim 20 is allowable for at least these reasons.

VIII. SUMMARY

Each of claims 10-20 has been improperly rejected, both (a) in that the Examiner has failed to provide prior art references that disclose all of the elements of these claims, and (b) in that the cited references would not support any rejection of these claims. Accordingly, Appellants seek the reversal of the rejection of claims 10-20.

Dated: Feb. 28, 2007

Respectfully submitted,

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CLAIMS APPENDIX

Claims Involved in the Appeal of Application Serial No. 10/804,811

10. A method in a computing system for characterizing an item, comprising:

determining a score for the item reflecting the extent to which the item has been ordered by customers who have been determined to commonly order items promptly after they become available; and

scaling the score in a manner that causes it to positively relate to the item's price and negatively relate to the amount of time that has elapsed since the item became available for ordering.

11. The method of claim 10 wherein an item detail web page is associated with the product, the method further comprising including in the item detail web page an indication of the item's scaled score.

12. The method of claim 11 wherein the included indication explicitly indicates the item's scaled score.

13. The method of claim 11 wherein the included indication explicitly indicates a range into which the item's scaled score falls.

14. The method of claim 11 wherein the included indication indicates a relationship between the item's scaled score and scaled scores for additional items.

15. A computer-readable medium whose contents cause a computing system to characterize items by:

for each of a plurality of items:

determining a score for the item in a manner that causes it to (1) positively relate to the extent to which the item has been ordered by customers who have been determined to commonly order items promptly after they become available, (2) positively relate to the item's price, and (3) negatively relate to the amount of time that has elapsed since the item became available for ordering; and

storing indications identifying at least a portion of the items having the highest scores.

16. The computer-readable medium of claim 15 wherein the contents of the computer-readable medium further cause the computer system to store in conjunction with the stored indications the scores determined for the corresponding items.

17. The computer-readable medium of claim 15 wherein the contents of the computer-readable medium further cause the computer system to generate a document identifying least a portion of the items having the highest scores.

18. The computer-readable medium of claim 15 wherein the contents of the computer-readable medium further cause the computer system to transmit to customers a document identifying least a portion of the items having the highest scores.

19. The computer-readable medium of claim 15 wherein the contents of the computer-readable medium further cause the computer system to transmit to make available for retrieval by customers a document identifying least a portion of the items having the highest scores.

20. One or more computer memories collectively containing a data structure comprising a plurality of entries each corresponding to a different product, each entry comprising:

information identifying the product to which the entry corresponds; and

a score indicating the extent to which the product (1) has been ordered by customers who have been determined to commonly order items promptly after they become available, (2) has a high price, and (3) recently became available for ordering.

EVIDENCE APPENDIX

No evidence has been entered or is being relied upon in the present appeal.

RELATED PROCEEDINGS APPENDIX

There are no decisions rendered by a court or the Board in any proceeding identified in the Related Appeals and Interferences section.